



jpw 1645

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Masayuki Tsuchiya et al. Art Unit : 1645
Serial No. : 10/550,934 Examiner : Unknown
Filed : August 25, 2006 Conf. No. : 1453
Title : MODIFIED ANTIBODIES AGAINST CD22 AND USES THEREOF

MAIL STOP AMENDMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Applicants request consideration of the references listed on the attached PTO-1449 form. Under 37 C.F.R. § 1.98 (a)(2)(ii), only copies of foreign patent documents and/or non-patent literature are enclosed. Copies of any listed U.S. patents or U.S. patent application publications can be provided upon request. Also enclosed are English translations of an International Search Report and an International Preliminary Report on Patentability (both from PCT/JP2004/004696).

English translations of foreign language references AM, AN, AO, AX, and AY are not included, since they are members of the patent family of U.S. references AA, AE, AC, AG, and AH, respectively. English translations of references AZ, AAA, and ACCC are provided herewith. In addition, Applicants enclose a concise English explanation of reference AD44.

Applicants wish to bring to the Examiner's attention co-pending and co-owned non-provisional application serial numbers 10/530,696 (Attorney Docket No. 14875-141US1), 10/548,727 (Attorney Docket No. 14875-150US1), 10/551,504 (Attorney Docket No. 14875-153US1), 10/582,176 (Attorney Docket No. 14875-163US1), 10/582,413 (Attorney Docket No. 14875-164US1), 10/582,304 (Attorney Docket No. 14875-166US1), 11/547,747 (Attorney Docket No. 14875-171US1), and 10/582,654, which concern related subject matter, and some of

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

February 9, 2007
Date of Deposit
Signature
Scott Barnett
Typed or Printed Name of Person Signing Certificate

Applicant : Masayuki Tsuchiya et al.
Serial No. : 10/550,934
Filed : August 25, 2006
Page : 2 of 2

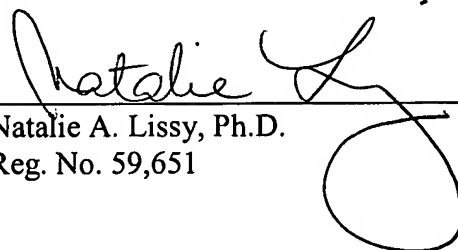
Attorney's Docket No.: 14875-151US1 / C1-A0305P-US

which have overlapping inventorship with the above-referenced application. Applicants assume that the Examiner has ongoing access to the files of these related applications and can obtain copies of prosecution documents from the files if at any point in the future he/she considers it potentially relevant to issues in the present application. Applicants will supply copies of such documents from the related applications' files, should the Examiner request them.

This statement is being filed before the receipt of a first Office Action on the merits. Please apply any charges or credits to Deposit Account No. 06-1050, referencing Attorney Docket No. 14875-151US1.

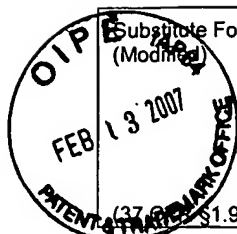
Respectfully submitted,

Date: Feb 9, 2007



Natalie A. Lissy, Ph.D.
Reg. No. 59,651

Fish & Richardson P.C.
225 Franklin Street
Boston, MA 02110
Telephone: (617) 542-5070
Facsimile: (617) 542-8906


 Substitute Form PTO-1449
 (Modified)

 U.S. Department of Commerce
 Patent and Trademark Office

 Attorney's Docket No.
 14875-151US1

 Application No.
 10/550,934

**Information Disclosure Statement
 by Applicant**

(Use several sheets if necessary)

 Applicant
 Masayuki Tsuchiya et al.

 Filing Date
 August 25, 2006

 Group Art Unit
 1645

U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	5,877,291	04/20/1995	Mezes et al.			
	AB	6,323,000	11/07/2001	Briggs et al.			
	AC	6,342,220	01/29/2002	Adams et al.			
	AD	6,683,157	01/27/2004	Briggs et al.			
	AE	2001/0006796	07/05/2001	Briggs et al.			
	AF	2002/0193571	12/19/2002	Carter et al.			
	AG	2003/0073161	04/17/2003	Briggs et al.			
	AH	2004/0091475	05/13/2004	Tsuchiya et al.			
	AI	2004/0242847	12/02/2004	Fukushima et al.			
	AJ	2006/0189794	08/24/2006	Tsuchiya et al.			
	AK	2006/0222643	10/05/2006	Tsunoda et al.			
	AL	2006/0275301	12/07/2006	Ozaki et al.			

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	AM	JP 7-503622	04/20/1995	Japan			See AA	
	AN	JP 2001/506135	05/15/2001	Japan			See AE	
	AO	JP 2001/513999	09/11/2001	Japan			See AC	
	AP	WO 97/31108	08/28/1997	WIPO			English abstract	
	AQ	WO 98/28331	07/02/1998	WIPO				
	AR	WO 98/41641	09/24/1998	WIPO				
	AS	WO 99/02567	01/21/1999	WIPO				
	AT	WO 99/10494	03/04/1999	WIPO				
	AU	WO 01/64713	09/07/2001	WIPO				
	AV	WO 01/66737	09/13/2001	WIPO			English abstract	
	AW	WO 01/79494	10/25/2001	WIPO			English abstract	
	AX	WO 02/33072	04/25/2002	WIPO			See AG	

Examiner Signature

Date Considered

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 14875-151US1	Application No. 10/550,934
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Masayuki Tsuchiya et al.	
		Filing Date August 25, 2006	Group Art Unit 1645

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	AY	WO 02/33073	04/25/2002	WIPO			See AH	
	AZ	WO 2004/033499	04/22/2004	WIPO			X	
	AAA	WO 2004/081048	09/23/2004	WIPO			X	

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
	ABB	Ballmaier et al., "c-mpl mutations are the cause of congenital amegakaryocytic thrombocytopenia," <i>Blood</i> , 97:139-146 (2001)
	ACC	Brinkmann et al., "FTY720: targeting G-protein-coupled receptors for sphingosine 1-phosphate in transplantation and autoimmunity," <i>Curr. Opin. Immunol.</i> , 14:569-575 (2002)
	ADD	Bruenke et al., "A recombinant bispecific single-chain Fv antibody against HLA class II and FcγRIII (CD16) triggers effective lysis of lymphoma cells," <i>Br. J. Haematol.</i> , 125:167-179 (2004)
	AEE	Clark, "CD22, a B Cell-Specific Receptor, Mediates Adhesion and Signal Transduction," <i>J. Immunol.</i> , 150:4715-4718 (1993)
	AFF	Co et al., "A Humanized Antibody Specific for the Platelet Integrin gpIIb/IIIa," <i>J. Immunol.</i> , 152:2968-2976 (1994)
	AGG	Daniel et al., "Induction of Apoptosis in Human Lymphocytes by Human Anti-HLA Class I Antibodies," <i>Transplantation</i> , 75:1380-1386 (2003)
	AHH	De Felice et al., "Differential regulatory role of monomorphic and polymorphic determinants of histocompatibility leukocyte antigen class I antigens in monoclonal antibody OKT3-induced T cell proliferation," <i>J. Immunol.</i> , 139:2683-2689 (1987)
	AII	DeNardo et al., "Anti-HLA-DR/anti-DOTA Diabody Construction in a Modular Gene Design Platform: Bispecific Antibodies for Pretargeted Radioimmunotherapy," <i>Cancer Biother. Radiopharm.</i> , 16:525-535 (2001)
	AJJ	Deng et al., "An Agonist Murine Monoclonal Antibody to the Human c-Mpl Receptor Stimulates Megakaryocytopoiesis," <i>Blood</i> , 92:1981-1988 (1998)
	AKK	Ebert et al., "Expression of Metallothionein II in Intestinal Metaplasia, Dysplasia, and Gastric Cancer," <i>Cancer Res.</i> , 60:1995-2001 (2000)
	ALL	Elliott et al., "Activation of the Erythropoietin (EPO) Receptor by Bivalent Anti-EPO Receptor Antibodies," <i>J. Biol. Chem.</i> , 271:24691-24697 (1996)
	AMM	Genestier et al., "Antibodies to HLA Class I α1 Domain Trigger Apoptosis of CD40-Activated Human B Lymphocytes," <i>Blood</i> , 90:726-735 (1997)
	ANN	Genestier et al., "Caspase-dependent Ceramide Production in Fas- and HLA Class I-mediated Peripheral T Cell Apoptosis," <i>J. Biol. Chem.</i> , 273:5060-5066 (1998)
	AOO	Genestier et al., "T cell sensitivity to HLA class I-mediated apoptosis is dependent on interleukin-2 and interleukin-4," <i>Eur. J. Immunol.</i> , 27:495-499 (1997)
	APP	Ghetie et al., "Homodimerization of tumor-reactive monoclonal antibodies markedly increases their ability to induce growth arrest or apoptosis of tumor cells," <i>Proc. Natl. Acad. Sci. USA</i> , 94:7509-7514 (1997)

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 14875-151US1	Application No. 10/550,934
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Masayuki Tsuchiya et al.	
		Filing Date August 25, 2006	Group Art Unit 1645

Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
	AQQ	Goel et al., " ^{99m} Tc-Labeled Divalent and Tetravalent CC49 Single-Chain Fv's: Novel Imaging Agents for Rapid In Vivo Localization of Human Colon Carcinoma," <i>J. Nucl. Med.</i> , 42:1519-1527 (2001)
	ARR	Goel et al., "Genetically Engineered Tetravalent Single-Chain Fv of the Pancarcinoma Monoclonal Antibody CC49: Improved Biodistribution and Potential for Therapeutic Application," <i>Cancer Res.</i> , 60:6964-6971 (2000)
	ASS	Goto et al., "A Novel Membrane Antigen Selectively Expressed on Terminally Differentiated Human B Cells," <i>Blood</i> , 84:1922-1930 (1994)
	ATT	Hudson et al., "High avidity scFv multimers; diabodies and triabodies," <i>J. Immunol. Methods</i> , 231:177-189 (1999)
	AUU	Kimura et al., "2D7 diabody bound to the $\alpha 2$ domain of HLA class I efficiently induces caspase-independent cell death against malignant and activated lymphoid cells," <i>Biochem. Biophys. Res. Commun.</i> , 325:1201-1209 (2004)
	AVV	Kipriyanov et al., "Effect of Domain Order on the Activity of Bacterially Produced Bispecific Single-chain Fv Antibodies," <i>J. Mol. Biol.</i> , 330:99-111 (2003)
	AWW	Kortt et al., "Dimeric and trimeric antibodies: high avidity scFvs for cancer targeting," <i>Biomol. Eng.</i> , 18:95-108 (2001)
	AXX	Kulkarni et al., "Construction of a Single-Chain Antibody Derived From 5H7, A Monoclonal Antibody Specific for a Death Signaling Domain of Human Class I Major Histocompatibility Complex," <i>Transplant. Proc.</i> , 30:1081 (1998)
	YYY	Kulkarni et al., "Programmed Cell Death Signaling Via Cell-Surface Expression of a Single-Chain Antibody Transgene," <i>Transplantation</i> , 69:1209-1217 (2000)
	AZZ	Lebrun et al., "Antibodies to the Extracellular Receptor Domain Restore the Hormone-insensitive Kinase and Conformation of the Mutant Insulin Receptor Valine 382," <i>J. Biol. Chem.</i> , 268:11272-11277 (1993)
	AAAA	Li et al., "The Epitope Specificity and Tissue Reactivity of Four Murine Monoclonal Anti-CD22 Antibodies," <i>Cell. Immunol.</i> , 118:85-99 (1989)
	ABBB	Matsuoka et al., "A Monoclonal Antibody to the $\alpha 2$ Domain of Murine Major Histocompatibility Complex Class I that Specifically Kills Activated Lymphocytes and Blocks Liver Damage in the Concanavalin A Hepatitis Model," <i>J. Exp. Med.</i> , 198:497-503 (2003)
	ACCC	Nishii, "CD22 antibody therapy," <i>Current Therapy</i> , 20:47-50 (2001) (English translation included)
	ADDD	Oka, "Development of Novel Immunotoxin Using Recombinant Alpha-Sarcin and Its Application Treatment of Hematopoietic Tumor," <i>Sankyo Seimei Kagaku Kenkyu Shinko Zaidan Kenkyu Hokokushu</i> , 12:46-56 (1998) (concise English explanation included)
	AEEE	Orita et al., "A novel therapeutic approach for thrombocytopenia by minibody agonist of the thrombopoietin receptor," <i>Blood</i> , 105:562-566 (2005)
	AFFF	Ozaki et al., "A Recombinant HLA Class I-Specific Single Chain Fv Diabody Induces Cell Death in Human Lymphoid Malignancies," <i>Blood</i> , 102:933a, Abstract No. 3474 (2003)
	AGGG	Ozaki et al., "Immunotherapy of Multiple Myeloma With a Monoclonal Antibody Directed Against a Plasma Cell-Specific Antigen, HM1.24," <i>Blood</i> , 90:3179-3186 (1997)
	AHHH	Pettersen et al., "The TCR-Binding Region of the HLA Class I $\alpha 2$ Domain Signals Rapid Fas-Independent Cell Death: A Direct Pathway for T Cell-Mediated Killing of Target Cells?" <i>J. Immunol.</i> , 160:4343-4352 (1998)

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 14875-151US1	Application No. 10/550,934
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Masayuki Tsuchiya et al.	
		Filing Date August 25, 2006	Group Art Unit 1645

Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
	AIII	Plückthun et al., "New protein engineering approaches to multivalent and bispecific antibody fragments," <i>Immunotechnology</i> , 3:83-105 (1997)
	AJJJ	Rossi et al., "Development of New Multivalent-bispecific Agents for Pretargeting Tumor Localization and Therapy," <i>Clin. Cancer Res.</i> , 9:3886s-3896s (2003)
	AKKK	Sato et al., "CD22 Is Both a Positive and Negative Regulator of B Lymphocyte Antigen Receptor Signal Transduction: Altered Signaling in CD22-Deficient Mice," <i>Immunity</i> , 5:551-562 (1996)
	ALLL	Scheurle et al., "Cancer Gene Discovery Using Digital Differential Display," <i>Cancer Res.</i> , 60:4037-4043 (2000)
	AMMM	Smith et al., "Inhibition of T Cell Activation by a Monoclonal Antibody Reactive Against the $\alpha 3$ Domain of Human MHC Class I Molecules," <i>J. Immunol.</i> , 153:1054-1067 (1994)
	ANNN	Tahtis et al., "Biodistribution Properties of ¹¹¹ Indium-labeled C-Functionalized <i>trans</i> -Cyclohexyl Diethylenetriaminepentaacetic Acid Humanized 3S193 Diabody and F(ab') ₂ Constructs in a Breast Carcinoma Xenograft Model," <i>Clin. Cancer Res.</i> , 7:1061-1072 (2001)
	AOOO	Tedder et al., "CD22, a B Lymphocyte-Specific Adhesion Molecule That Regulates Antigen Receptor Signaling," <i>Annu. Rev. Immunol.</i> , 15:481-504 (1997)
	APPP	Thilenius et al., "Agonist antibody and Fas ligand mediate different sensitivity to death in the signaling pathways of Fas and cytoplasmic mutants," <i>Eur. J. Immunol.</i> , 27:1108-1114 (1997)
	AQQQ	Woodle et al., "Anti-Human Class I $\alpha 3$ Domain-Specific Monoclonal Antibody Induces Programmed Cell Death in Murine Cells Expressing Human Class I MHC Transgenes," <i>Transplant. Proc.</i> , 30:1059-1060 (1998)
	ARRR	Woodle et al., "Anti-Human Class I MHC Antibodies Induce Apoptosis by a Pathway That Is Distinct from the Fas Antigen-Mediated Pathway," <i>J. Immunol.</i> , 158:2156-2164 (1997)
	ASSS	Woodle et al., "Class I MHC Mediates Programmed Cell Death in Human Lymphoid Cells," <i>Transplantation</i> , 64:140-146 (1997)
	ATTT	Wu et al., "Tumor localization of anti-CEA single-chain Fvs: improved targeting by non-covalent dimers," <i>Immunotechnology</i> , 2:21-36 (1996)
	AUUU	Xiong et al., "Efficient inhibition of human B-cell lymphoma xenografts with an anti-CD20 X anti-CD3 bispecific diabody," <i>Cancer Lett.</i> , 177:29-39 (2002)
	AVVV	Xu et al., "Insight into hepatocellular carcinogenesis at transcriptome level by comparing gene expression profiles of hepatocellular carcinoma with those of corresponding noncancerous liver," <i>Proc. Natl. Acad. Sci. USA</i> , 98:15089-15094 (2001)

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	